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Recommendations, suggestions, and policies followed in organizing and developing a program for educating the more able students in the high schools of Kent County, Maryland, were presented. Some of the objectives which guided the policy-making process are: to identify the more able students at an early stage in high school and provide improved instructional practices that challenged them; to develop a higher level of creativity among the more able; to help parents and teachers develop an appreciation of students with unusual talent and outstanding ability; to help the superior student develop the power to think critically, to plan, to execute, and to judge.

Included are suggestions for a County-Wide Curriculum Committee and for curriculum changes. Some of the selected ideas and techniques of teachings which might prove effective are discussed: multiple classes, seminars, team teaching, flexible scheduling, and programmed learning. Vocabulary building the improvement of study skills are two areas which receive special attention. The individual programs in each of the four high schools are inserted.

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EDUCATING THE MORE ABLE STUDENTS

IN THE KENT COUNTY HIGH SCHOOLS

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BOARD OF EDUCATION OF KENT COUNTY

CHESTERTOWN, MARYLAND

June, 1962

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EDUCATING THE MORE ABLE STUDENTS IN THE KENT COUNTY HIGH SCHOOLS

FOREWORD

The purpose of this bulletin is to make recommendations, to offer suggestions, and to state policies to be followed in organizing and developing program for educating the more able students in the high schools of Kent County. It has been prepared by a committee whose membership included teachers and administrators from the four high schools in the system.

Now that the Board of Education, county school officials, and the committee have established a framework, the faculty of each school, under the leadership of the principal, should move forward in following the program as it has been outlined in this report. The implementation of the various phases should be gradual and thorough. Even though this report is devoted to the more able, the committee realizes that many of the practices also apply to a degree to all other students.

The success of the program will depend upon the whole-hearted cooperation of students, parents, and school personnel. For students, this will mean more intensified academic attitude and effort. For parents, this will demand a firm stand requiring their sons and daughters to live up to the high educational standards of these times. For teachers and other school personnel, this will be a challenge to employ all the initiative, leadership, knowledge, and teaching skills which they have at their command in order to insure the program's success.

INTRODUCTION

In recent years considerable concern has been expressed over the curriculum and instruction that students with high ability have been receiving. Many leaders feel that these students are not being provided with a program that is sufficiently challenging to give them the essential educational background and to develop the abilities that are needed for achieving success in institutions of higher learning. Significant and far reaching scientific developments in the United States, as well as in other countries of the world, have sharpened the interests of citizens in their public schools.

School systems throughout the United States have been searching for the answer or answers to this problem. Officials in many systems are aware that something should be done and are experimenting with a variety of approaches. Some school systems refer to these students of high ability as the "gifted," while others describe them as the "talented" and the "superior."

In heavily populated areas, school systems with large enrollments in the public schools, the students are expected to have an I. Q. of at least 130 - 135 to participate in the curriculum especially designed for these young people. Though moving forward with vigor, each school system, however, seems to be seeking ways that would have value for the students in their local schools.

In Kent County, we have been analyzing our existing program to determine the desirable changes that should be made. Actually, we commenced to give more attention to providing opportunities for the gifted when the high school principals prepared a statement concerning the identification of these students. This statement also included what was then being done to meet their needs. This statement also included

what was then being done to meet their needs. The Board of Education accepted and approved this report February 24, 1954.

In September, 1959, a committee was commissioned to study the need for and the feasibility of developing a program for the more able students. As the work of the committee progressed, it became apparent that the development of a program for the more able would lead to the upgrading of the program for all students. In light of the findings, the committee recommended the continued improvement of the entire educational program for the high schools of Kent County, with special emphasis being devoted to recognizing and providing opportunities for the more able students.

A survey of the results of the standardized intelligence tests, administered in 1961 to Kent County students in grades 7 - 12, revealed that only a small number had I. Q.'s of 130 and above. In order to have a sufficient number of students to justify a program, it was decided to include students with I. Q.'s of 110 and above. Other criteria for the selection of students include: (1) the evaluation of the student's academic achievement by the teachers, (2) the results of standardized achievement tests, (3) the motivation, goals, and expressed interests of the students, (4) the information provided by the parents, and (5) the worthwhile community and extra-curricular educational experiences of the students. A review of the findings of all of these areas would determine when and where a student begins in the program and the extent to which he will continue to participate in the future.

Thus far, a number of practices have been and are being tried out in Kent County with varying degrees of success. In grades 7, 8, and 9, the students are assigned to sections on the basis of past

scholastic performance, the evaluation of the student's scholastic achievement by the teachers, and the results of standardized intelligence and achievement tests. The size of English classes in grades 7 and 12 has been reduced to make it possible to have writing experiences more frequently. One school is experimenting with the University of Maryland mathematics program, having started with grade 7 during 1960-61, and continuing with the addition of grade 8 during 1961-62. Two schools are now offering three years of French; another school will be offering three years of French after one more year. All of our high schools now begin algebra in grade 9, with two schools scheduling advanced mathematics in grade 12. With the aid of matching funds from the National Defense Education Act, the equipment and the facilities for laboratory work in science classes have been greatly improved. A limited use of correspondence courses has been made.

The committee has been studying and analyzing various proposals and programs that are being experimented with, elsewhere, in search of ideas for a plan that would be suitable for Kent County High Schools. Members of the committee have been reading pamphlets, bulletins,, books, and other literature on the philosophy, nature, content, and the administration of these programs. Visits to school systems in Washington, D. C.; Harford and Baltimore Counties, Maryland; Abington and Upper Darby Township School Districts, Pennsylvania; and the Catskill Area Project in Small School Design, Oneonta, New York, have been made by members of the committee. A comprehensive questionnaire requesting information about programs for the academically talented in grades 7 - 12 was sent to all of the counties of Maryland and Baltimore City and to fifty-three school systems in various parts of the United States. The committee received a splendid response from these school

systems. The information collected from the questionnaire has been summarized and is serving as an excellent source of ideas for the use of the committee. We found that many of the practices reported already operate in our schools, others are practical only for large systems, and still others presented ideas that we are considering.

Previously in this report it was mentioned that our four high schools have already initiated practices that are proving to be effective for the more able students. Currently, the committee and the staff of each high school are preparing a more detailed program based upon the study and recommendation embodied in this report. Major emphasis will be directed toward enriching the existing program in depth and providing additional offerings. Special attention on a county-wide basis will be directed toward improving and extending the vocabulary of students and helping them develop the ability to study effectively.

OBJECTIVES

Even though these objectives are primarily designed to aid the program for the more able students, the committee has been cognizant of the needs of the other students in our schools. The committee feels that some of the specific objectives applicable to our more able students are:

1. To identify the more able students at an early stage in high school and provide improved instructional practices that will challenge them in accordance with their capacities and abilities.

2. To develop a higher level of creativity among the more able students.

3. To analyze and use selected ideas and techniques of teaching that may prove to be effective in improving the instructional program, such as: multiple classes, seminars, correspondence courses, teacher aides, flexible scheduling, and programmed learning.

4. To strengthen and raise standards of the academic program at all grade levels of junior and senior high schools.

5. To instill in the parents an appreciation of students who possess unusual talent and outstanding ability.

6. To help teachers develop an appreciation of students who possess unusual talent and outstanding ability.

7. To instill in the student a desire for learning and an appreciation of his unusual talent and outstanding ability.

8. To sensitize the teachers to the need for challenging the more able students and to increase their ability to teach these students.

9. To help the students develop the power to think critically, to plan, to execute, and to judge.

10. To provide varied experiences and opportunities for students who show special aptitude in one subject only.

The committee feels that some of the general objectives applicable to all students are:

1. To improve and expand our grouping practices for all students and continue ability grouping within schools and classes.

2. To help students achieve a higher level of success by developing effective study habits.

3. To improve and extend the vocabulary of students.

4. To encourage creativity among all students by providing experiences that will develop originality, initiative, and inventive ingenuity.

5. To instill in the parents, as well as in the students, the value of an education.

6. To enrich the existing program by encouraging such things as: independent work, arranging organized, purposeful field trips, and selecting and using effectively visual and curriculum aids.

7. To broaden the prospectus of courses and to deepen the degree of the development of concepts in all courses within the framework of the regular classroom situation.

8. To develop, to the highest degree possible, cooperation among teachers, counselors, supervisors, and administrators in meeting the needs of all students.

9. To provide for flexibility in scheduling in order to permit students who are not academically inclined, the opportunity to take courses in the mechanical field or graphic arts in which they have special talents.

10. To expand library facilities and materials and to use them effectively to meet the needs of all students.

11. To equip students for living and to inform them of the possibilities and the responsibilities which they have to give leadership and make worthwhile contributions to society.

IDENTIFYING AND SELECTING THE STUDENTS

Guiding Principles

Early identification of the more able students is necessary in order for the school to give special attention to their educational development. A student's intellect does not develop in a smooth, orderly way; since ability can be manifested at any stage of the educational process, the identification process must be continuous.

Many of the more able students with unusual intellectual ability "identify" themselves to teachers and others who work with them. They usually achieve outstanding success in both curricular and extracurricular school activities. Their native ability, their favorable home environment, and their desire to be part of the total school program contribute to a high achievement level that clearly distinguishes them as the more able students.

There are, however, other students who are equally bright but who possess personal characteristics that may confuse parents, teachers, and others involved in the identification process. These students will not identify themselves on the basis of outstanding school achievement. Their grades may be low; they may be noncooperative in carrying out assigned tasks; they may irritate the teacher and appear to be disobedient, inattentive, and unstable. One of the big jobs of the school is to identify and motivate these students who have unusual ability.

The most common mistake made in identification is based on the assumption that mental organization is a simple unitary thing and that I. Q. or some other single measure is the best factor that can be used for determining a student's ability. There is sufficient evidence that the mental organization is highly complex and that single-measure tests

are likely to conceal important differences. As rapidly as valid tests or devices are developed to assess different types of aptitudes, they should be used in the identification process.

In early selection of the more able students, the cultural background factors, the interests of the student, and other character traits can be decisive. It is important to look at the student's energy level to determine to what extent he undertakes and completes job after job.

We are aware of the fact that all able students will not be the same, because they possess different kinds of abilities. Therefore, in our effort to identify the more able students for our program, let us recognize them as individuals and appreciate their differences.

In some cases it may not be advisable for a student to participate in a full program.

Criteria for Use in Kent County High Schools

In order for a student to participate in the program without experiencing serious difficulties, he should meet a sufficient number of the requirements stated below.

1. Be in the upper 25% of his entire class (grades received on report cards).

2. Be in upper quartile of achievement tests for Kent County students.

3. Have an intelligence quotient of at least 110 based on the results of a minimum of three standardized intelligence tests administered over a period of several years. Score used should be the average of the three tests.

4. Have been evaluated and recommended by two or more of the student's recent teachers regarding ability, performance, and attitude.

5. Have had entire elementary and high school record reviewed and evaluated.

The following are offered as additional help in identifying the more able students:

1. Under the leadership of the principal, counselor, committee members, and teachers, every school should prepare a master list of its more able students.

2. Use county norms available for SCAT and STEP Tests to insure students a fair chance in the program; reduce scores to pinpointed percentile rankings or raw scores.

3. List the extracurricular activities in which students participate.

4. Conduct conferences with parents of students selected to participate in the program.

The Characteristics of the More Able Students

The following excerpts apply to gifted children who in general are considered to have an I. Q. of 130 and above. Though the characteristics given in these excerpts will not apply in toto to our more able, they may help in their identification.

> "All gifted children have very superior intellectual ability. They are capable of absorbing more knowledge and mastering more academic skills earlier, more rapidly, and with less effort than their less able agemates. As children, the gifted are capable of solving complex problems by using mental processes which are usually employed by adults.
>
> "Research has done much to correct the erroneous opinion that the gifted pay for their intellectual superiority with physical awkwardness, poor health, and emotional instability. Giftedness is a total something which, in a large majority of cases, touches the whole individual. As a group, gifted children are not only smarter than other children; but they are also stronger, larger, healthier, better adjusted, and more talented than other children of the same age. Furthermore, as they grow older, gifted children show an increase in their superiority over other children.
>
> "Several important personal characteristics of gifted children are liable to confuse and mislead their parents and teachers. The gifted child's curiousity, persistence, purposefulness, and sensitivity frequently irritate adults and take on the appearance of disobedience, inattention, and instability. Parents, teachers, and others, on occasion, underestimate the true ability of the gifted child. They accuse him of being too active or interested in the 'wrong' things."[1]

---

1. Warren A. Ketcham, "What Research Says about the Education of Gifted Children," School of Education Bulletin, (Ann Arbor: The University of Michigan, 28:5, February, 1957), p. 66

"The following characteristics of gifted children have been selected from various research studies in the area and are offered as a guide for teacher observations. No one student can be expected to manifest all of these characteristics to a significant degree. Their listing is intended to provide check-points that will be helpful in the observation process.

"Intellectually gifted children, when compared with children in general, frequently demonstrate the following mental characteristics:

1. greater ability to make logical associations
2. longer attention span
3. greater originality in self-expression
4. more initiative
5. evidence of the power to generalize to a higher degree
6. deeper and more varied interests
7. vocabulary in excess of age level
8. greater degree of inquiring curiosity
9. greater ability to follow relatively complex directions
10. more reading in more areas for informational purposes

"In comparison with children in general, intellectually gifted children often give evidence of the following emotional characteristics:

1. greater degree of social adjustment
2. superior mental health
3. greater maturity in character development
4. more self-reliance
5. preference for older companions
6. giving way to boredom when confronted with repetition
7. more critical viewpoint of self and others
8. greater value for adult approval

"When intellectually gifted children are compared with children in general in their own age group, they are found to have the following physical characteristics:

1. taller than average for their age

2. stronger than their age group

3. healthier

4. more mature physically than their peers

5. better coordinated physically"[2]

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2. Metropolitan School Study Council, How to Educate the Gifted Child (New York: Metropolitan School Study Council, 1956), pp. 4-5.

CURRICULUM CHANGES

The committee presents a number of recommendations to serve as guides relative to the organization of curriculum. Some of the factors which influence curriculum organization and development are: size of the school, size and nature of the student body, availability of teachers, and modern trends which have significance for curriculum makers.

The committee feels that curriculum study groups may need to select the more important changes and give them first consideration. To attempt all recommendations within a short period could weaken rather than strengthen the program. Some changes are in the initiatory stages or are definitely within the curriculum in some schools at the present time.

The committee suggests that the following recommendations be considered in organizing the curriculum for the more able students.

English

1. Establish a basic English program.
2. Provide for an enriched English program in the English curriculum bulletins.
3. Offer creative and expository writing to senior high school students.
4. Include units within the regular program which provide for the development of special interests related to English (journalism, dramatics, public speaking, rapid reading).

Social Studies

1. Revise the present 7th grade social studies curriculum.
2. Offer a course in world geography, which should precede the course in world history.

3. Recommend that students be expected to earn one unit more than the state requirement of three units for an academic diploma.

Suggested Sequences

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
United States History	Civics	World Geography	World History	United States History	Problems of 20th Century
World Geography	United States History	Civics	World History	United States History	Problems of 20th Century

Science

1. Provide adequate science laboratories.

2. Provide extra periods for long-range, sustained laboratory activities in biology, chemistry, and physics.

3. Increase laboratory activities that are designed to clarify principles and solve problems for which answers are not known in advance by the students.

4. Add physics to the science program in those schools where it is not already offered.

5. Update the entire science program by using some of the experimental programs which have been developed by various National Committees - Physical Science Study Committee, Biological Science Curriculum Study.

6. Broaden the experiences and update the knowledge of science teachers by participation in various experimental programs.

7. Consider the feasibility of programmed learning.

8. Utilize community resources

9. Recommend that students be expected to earn one unit more than the state requirement of two units for an academic diploma.

Suggested Sequences

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
General Science	General Science	General Science	Biology	Chemistry	Physics
General Science (Biological)	General Science (Physical)	General Science (Earth)	Biology	Chemistry	Physics

Mathematics

1. Introduce experimental programs in mathematics which have been devised by groups of mathematics educators, as supplementary and additive to help stimulate and create interest.
   The University of Maryland Mathematics Project
   The School Mathematics Study Group or Yale Project
2. Update the background of teachers through the assistance of National Math Foundation Institutes, Fellowships, and Workshops.
3. Consider the feasibility of programmed learning.
4. Advance 7th and 8th grade students as rapidly as possible in order to include introduction to algebra and geometry.
5. Stress and develop skills in problem solving, placing special emphasis on word problems.
6. Recommend that students be expected to earn one unit more than the state requirement of two units for an academic program.

Suggested Sequences

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
General Mathematics	General Mathematics	Algebra I	Algebra II	Geometry	*Trigonometry/ Analytic Geometry; or Algebra III
General Mathematics	General Mathematics	Algebra I	Algebra II	Plane Geometry	*Trigonometry/ Solid Geometry
General Mathematics	General Mathematics	Plane Geometry	Algebra I	Algebra II	*Trigonometry/ Solid Geometry

* Diagonal line indicates semester course

Foreign Language

1. Increase modern foreign language offerings.
2. Offer a minimum of three years of a modern foreign language (terminal year - 12th grade).
3. Offer a fourth year of a foreign language to students with exceptional ability.
4. Allow selected 8th grade or 9th grade students to take a foreign language.
5. Equip audio-lingual classrooms.

Art and Music

Offer art and music courses as electives to the artistically talented student in the senior high school.

Other Subject Areas

Business, Agriculture, Home Economics, Industrial Arts, Physical Education, and Driver Education

Urge teachers of these subjects to provide enriched and more challenging experiences for the more able students.

General Curriculum Changes

1. Encourage teachers to increase their knowledge through various experimental programs, institutes, fellowships, etc.

2. Accept enrichment of the programs as basic procedure for the more able student.

3. Consider the possibility of offering seminars in science, mathematics, social studies, and English.

4. Consider the feasibility of programmed learning.

5. Consider the possibility of offering multiple classes and/or correspondence courses.

6. Utilize flexible scheduling where possible.

7. Utilize the services of school aides.

8. Utilize new teaching procedures for the small high school: shared servies, team teaching, large group instruction, and small group discussion.

9. Urge counselors and teachers to work carefully with students in assisting them in selecting electives that are in keeping with their educational goals, abilities, and future plans.

SUGGESTIONS FOR COUNTY-WIDE CURRICULUM COMMITTEES

The committee proposes to the curriculum committees which are developing new and revising old courses of study that provision be made for broadening the prospectus of courses and deepening the degree of development of concepts. Suggestions made in resource bulletins prepared by the curriculum committees should be devised so that the broadening and deepening will take place within the framework of the regular classroom situations of the individual schools. In order that the more able students may be challenged in the regular classroom situations, special consideration should be given to the following:

1. Developing understandings, attitudes, and skill of sufficient depth to motivate and challenge the more able.

2. Proposing activities of a nature that motivate and challenge.

3. Listing texts and supplementary materials to assist in motivating and challenging the more able students.

4. Devising a code to indicate to the teachers which understandings, attitudes, activities, and texts are suited to the more able students.

5. Including concrete suggestions for differentiated assignments. Those proposed for the more able students should develop power in skills, abstract thinking, and creativity. They should not be of the <u>more of the same</u> type.

6. Including specific suggestions for improving ability to read effectively in given subject matter areas.

7. Include specific suggestions for encouraging students to read challenging and wholesome materials.

8. Proposing definite means of developing vocabulary.

9. Including concrete suggestions for teaching study techniques, especially those that develop power in abstract thinking.

10. Suggesting various visual aids and mechanical teaching devices which motivate and challenge the more able students.

11. Proposing concrete suggestions for developing facility in oral and written expression. These suggestions should be made for:

A. Expository writing

B. Creative writing

C. Skills for effective oral expression

D. Grammar and mechanics related to oral and written expression

12. Including suggestions which will develop in students the habit of adhering to standards of good writing and English usage in all subject areas. These other areas can afford excellent opportunities for the application of these standards.

13. Including activities to encourage creativity. These activities should not be of the "busy work" type. They should be devised so that a capable student can plan, execute, and evaluate a profitable project. Some suggestions are:

A. Devising figures for illustrating mathematical relationships

B. Performing scientific experiments, independently

C. Holding science fairs

D. Producing assemblies and plays

E. Participating in intra- and inter-county debates

F. Editing school papers

G. Writing poems and short stories

H. Selecting student poems and short stories for publication

14. Providing activities which encourage the more able students to exert leadership and to contribute their power to the good of the class, school, and community.

15. Proposing methods of teacher and pupil evaluation. Attention should be given to the quality of work produced by the more able students.

The committee also proposes to the curriculum groups that an effort be made to plan courses of study in such a way that all students will be motivated and challenged to work at a level commensurate with their potentials. The following specific suggestions are made:

1. That basic requirement be established, particularly in the fields of English, mathematics, and science, for each grade level or course offered and that students be held to them.
2. That methods of evaluation be established so that teachers will be in a position to decide on promotion and non-promotion.

SUMMARY OF SELECTED IDEAS AND PRACTICES RECOMMENDED FOR USE IN KENT COUNTY

Both quantity and quality of education are demands of a democracy. Achievement in these have been the result of constant efforts to experiment, spurred by a desire to improve. The challenge of quantity has been met to a great extent, as most of our youth are in school, and most classrooms have teachers. However, the challenge of quality is now more difficult to meet than ever. Provision must be made for individual differences of the students, and learning experiences must be those which are the most significant for the success of the individual; so that he can make the greatest possible contribution toward the progress of society.

The following items are suggested to supplement the program and in some instances to provide instruction which cannot be offered by the existing staff. These suggestions, if used, should be introduced gradually, since they are supplements to rather than substitutes for good instruction.

1. School Aides - A School Aide is a versatile, resourceful adult or college student who relieves, on a paid basis, two or more teachers of necessary time-consuming tasks not directly related to instruction and may work on a flexible time schedule carrying out activities designated by professional personnel.

   A. Main classifications

      (1) Clerical assignments - general secretarial work, recording of grades, checking rolls, ordering and distributing supplies, checking and scoring objective tests and summarizing results

      (2) Monitorial duties - cafeteria, playground, study hall, bus and corridor supervision, substituting for short periods or whole days - by supervising pupils who are using materials selected or prepared by teachers, assisting younger pupils with wraps, assisting librarians, and operating projectors and recording apparatus

(3) Health programs - assist school physicians, nurses, and dental technicians with clerical and monitorial help and with telephone calls to parents regarding health matters

(4) Extra-curricular programs - assist with play production, chaperoning school dances and trips, and monitoring at school games

B. Reactions concerning the program

(1) Teachers can devote more time to teaching

(2) Teachers are freed from routine duties

(3) Teachers and pupils accept and appreciate aides

(4) Public relations are improved

(5) Teacher morale is improved (aide neither assumes too much authority nor threatens the teachers' job or status).

(6) Antagonism and jealousy among some faculty members result

C. Guide Lines for launching the program

(1) Aides are to serve only specific worthwhile needs.

(2) Aides must possess competence in the proposed jobs they may be assigned to do

(3) Teachers, with whom Aides work, must understand and approve the assignment and the basic purpose of the service Aides will provide.

(4) Aides must be well regarded in the community.

(5) Aides must be well-educated people who help to infuse the schools with intellectual vitality upon which students may thrive

(6) Aides must have a sense of loyalty and a proper regard for professional ethics

(7) County should conduct an orientation program for Aides, teachers with whom they will work, and other staff members so that all who are involved have a thorough understanding of the intent of the program

(8) County should conduct in-service education programs to improve Aides' efficiency

(9) Pay is usually $1.50 per hour

(10) Work is largely done at home - usually $10 per week

(11) Aides assume only non-instructional duties

D. Starting the program

(1) Begin slowly - identify teachers who, by status, possess leadership, display willingness to work with others, are eager to initiate changes for which they appreciate the need and have the imagination and energy that a program of experimentation demands. Extend services to other teachers upon request and approval

(2) Provide adequate supervision the first year for effective functioning of the program

E. Example: Lay Readers

(1) What are they? Qualified people (housewives) employed not only as readers to grade papers but also as Aides to direct independent reading periods of "self-correcting homework" (programmed exercises)

(2) Values to teachers and pupils

(a) Permit teachers to concentrate on such basic professional tasks as conducting class discussions of books and student papers, and giving individual attention to the very fast students and to the very slow

(b) Increase student composition proficiency by making possible more written work

2. Multiple Classes - A Multiple Class is a class in which a teacher guides the learning endeavors of two or more groups (usually a minimum of three students per group) of pupils in two or more courses in one room in the same period of a daily schedule.

A. Subject area combinations within classes - examples:

(1) Related - all mathematics - algebra, trignometry, and advanced mathematics

(2) Progressive development in the same subject area - French I, II, III

(3) Unrelated - social studies group carrying on while a smaller group follows a supervised correspondence course

B. Teacher planning involves:

(1) Preparing duplicated work sheets

(2) Preparing learner's guides

(3) Planning good use of library resources

(4) Selecting and supervising correspondence courses

(5) Choosing films, filmstrips, and recordings

(6) Making tape recordings

C. Teachers' reactions

(1) More planning is needed in some respects but less is needed in others

(2) Students progress at a faster rate

(3) Little difficulty is noticed in moving from one subject to another

(4) More things are done than in a typical classroom situation

(5) Effective study habits and skills, individual responsibility for learning, and more initiative are developed

(6) A high degree of individual and small group instruction is established

(7) Effective learning results

D. Students' reactions

(1) Offer a chance to take more courses

(2) Encourage independent work

(3) Establish a feeling of achievement

(4) Encourage competence and the ability to make decisions

(5) Develop or encourages development in one's ability to budget time effectively

(6) Provide individual attention

E. Use - a small-school situation with enthusiastic and competent teachers where additional courses are needed

3. Programmed Learning - Programmed Learning is built on the premise that self-instruction can proceed through the use of a programmed text or a teaching machine with programmed instruction, provided that it is done under the supervision of a teacher.

A. Teaching machines are designed for:

(1) The programs they are fed

(2) The characteristics of the students who operate them

B. Kinds of program in use now

(1) Skinner (simple) - linear and behavioristic

(2) Crowder (complex machine) - non-linear, non-behavioristic

C. Purpose of machine- to provide self-teaching lessons for students

D. Attitudes concerning

(1) Good prospects for education if properly used

(2) Little knowledge about them

E. Cost ranges from several hundred dollars each, down to $20 or less.

F. Serious Problems -

(1) Many teachers are not well-versed in how to prepare information.

(2) New and in a trial stage.

G. Areas of use

(1) Grammatical - structural patterns

(2) Usage

(3) Mechanics

(4) Spelling

(5) Vocabulary

(6) Paragraph structure

(7) Mathematics

H. Advantages over other teaching techniques

(1) Each student advances at his own rate

(2) A student can check his result or reaction immediately

(3) A student moves to advanced material only after he has mastered earlier stages

(4) The process is gradual and increases in difficulty as one advances

(5) A student is continuously active and receives immediate confirmation of his status.

(6) A student must comprehend the critical point in order to supply the answer

(7) A concept is represented by many examples

(8) A record of students' responses furnishes information for future revisions

(9) A tool to free the teacher for individual or group instruction

I. Disadvantages

(1) Reduces subject matter to what can be easily programmed

(2) Causes anxiety among some students

(3) Causes inconvenience to have to go to a special room to study

(4) Makes material too easy for some students and too difficult for others

(5) Affects a student's motivation by increasing the number of errors caused by uneven difficulty level of the instructional material

(6) Cannot replace the talents of a superior teacher

(7) Lessens effectiveness in the development of the thinking process

(8) May inhibit creativity

(9) Is too expensive

4. Flexible Scheduling - Flexible Scheduling means having a daily schedule in which classes would be of unequal length, would meet at differing periods throughout the week, and would be truly geared to the individual needs of the students.

A. Accomplished by

(1) Having longer periods scheduled four times a week instead of five times

(2) Rotating periods

(3) Interchanging morning and afternoon schedules every two weeks

(4) Having two or more master schedules that can be exchanged almost at will

B. Values

(1) Encourages creative teaching

(2) Encourages individual learning

(3) Permits teacher - pupil planning

(4) Permits the small school to build an instructional program around the needs of individuals and small groups

(5) Permits longer periods

(a) Directed study under the supervision of the teacher

(b) Varied classroom activities

(6) Permits beginning and ending of a class only eight times a week instead of ten

5. Shared Services - A Shared Service is a cooperative arrangement to obtain teachers and other kinds of specialists whose services are needed by pupils. This technique is usually used in small school design.

A. Accomplished by

(1) Teachers traveling from school to school

(2) Students traveling from school to school

B. By teaming up, local school districts in a county can effectively provide for themselves specialized services:

(1) That are not needed daily

(2) For which there is too little demand to require full-time assistants

(3) That would cost too much for any one school to carry for the number of pupils served

C. Groups

(1) Services needed regularly by few pupils in local school districts

(2) Services required only at wide intervals

D. Plan cooperatively - A well-staffed, relatively low-cost program of Shared Services can be developed through teamwork with other schools

E. Costs from

(1) Local school district funds

(2) State Aid

(3) Foundations encouraging experimentation

(4) Students

F. Things Shared Services can do for a school

(1) Uncover needs for new and expanded education services

(2) Make available certified personnel that small school districts can hire on a part-time arrangement to give pupils new or additional services

(3) Make available certified personnel that school districts can hire on a part-time arrangement to augment existing services for which additional full-time personnel cannot be justified

(4) Enlist specialists to provide needed supervisory and consultant services

(5) Encourage and organize active programs of educational research among the schools in their areas

6. Team Teaching - Team Teaching may be accomplished in a limited way by periodically combining the classes of two teachers; so that one or the other of them can teach those phases of a subject in which he is most interested and is most competent to handle. The two teachers work together in a systematic way, planning presentations or units of study. An expanded team cutting across subject matter lines could be organized by adding one or more teachers to the team.

A. Suggestions for making teaching teams more effective

(1) Teachers involved should have a common free period for planning and evaluating

(2) Clerks and instructional assistants should be available

(3) Technological aids to instruction should be available

(4) Consultant help should be provided when needed

(5) Principals and supervisors should work closely with the teaching team

B. Teachers' reactions

(1) Creates a wholesome spirit - more demanding for students and more stimulating for teachers

(2) Provides a chance to focus on the areas which lend themselves to special discussion in small groups

(3) Calls for a certain amount of personal sacrifice and commitment to the team philosophy

(4) Permits creativity - can do an endless number of things

(5) Utilizes the best that teachers have to offer

C. Some advantages

(1) Teachers may make better use of their strengths

(2) More time is available for lesson planning

(3) Better presentation results through better preparation

D. Some disadvantages

(1) First-year teachers come to depend on older teachers and clerks too much

(2) Turnover in teacher personnel keeps the "teacher-teams" in a constant orientation and training phase

(3) Scheduling blocks of time for any given subject is very difficult

(4) Teaching seems to become more subject matter centered than student centered

7. Large Group Instruction - This practice includes a number of activities carried out in groups of 100 or more students. Limited enrollment may reduce this figure. Instruction will be conducted by particularly competent teachers, who have adequate time for preparation, and who will make use of the best possible instructional aids.

A. Teaching-Learning Experiences

(1) Introduction of new topics, units, and concepts

(2) Interest is stimulated

(3) Understanding of terms and concepts are further developed

(4) Questions raised and answered

(5) Identification of the range of possible learning activities is provided. Problems to be solved are considered

(6) Learning activities are selected. Methods of study are planned

(7) Learning is shared through buzz-sessions, panels, and other group techniques

(8) Content not readily available to students is introduced

(9) Understandings and appreciations are developed. Concepts that can be transferred to other situations are summarized

(10) Knowledge, appreciations, skills, and generalizations are measured prior to study, during study, and at the conclusion of the activity. A variety of evaluative techniques are utilized

B. Place

(1) Auditorium

(2) Cafeteria

(3) Study hall

(4) Rooms joined by television or public address system

(5) Other large rooms

C. Time

About forty per cent of the students' time is devoted to this phase of instruction

8. Supervised Correspondence Courses - Supervised Correspondence Courses are courses which are offered to satisfy a particular need or interest of a student and are usually conducted in a multiple class situation of small school design.

A. Reasons for implementing

(1) To fulfill the need for courses which cannot be offered in the regular program

(2) To fulfill student request - interest and/or need

(3) To meet college entrance requirements

(4) To develop vocational skills

(5) To "make-up" a course previously failed

(6) To offer enrichment for more able students

(7) To fulfill other reasons pertinent to a particular school situation

B. Suggested ways of incorporating in the master schedule

(1) Utilize a central person, preferably the guidance counselor, to initiate and supervise the program - act as coordinator

(2) Select interested and competent teachers

(3) Select students who:

(a) Are above average in ability in the particular subject area

(b) Need the course

(c) Are greatly interested in the course

(d) Are able to spend concentrated study time on the course

(e) Have good study habits

(f) Possess above-average responsibility

(4) Establish a definite period of school time for conducting the course - multiple classes in some cases.

(5) Provide advanced courses for acceleration or advanced placement via College Board Exams

(6) Offer courses that meet students' interests or aptitudes

(7) Record grades for such courses on the transcript just as any other subject receiving school credit

C. Teachers' reactions

(1) Students progress at their own rate - faster usually

(2) Effective learning results

(3) High degree of individual instruction is provided

(4) Effective study habits and skills, individual responsibility for learning, and more initiative are developed

(5) More planning and work are required in some respects; less is required in others

(6) Teacher learning is accomplished

D. Students' reactions

(1) Opportunity is offered to fulfill special interests

(2) Independent work encourages better learning and a feeling of achievement

(3) Time is budgeted

(4) Decisions are encouraged

(5) More individual attention is obtained from the teacher

E. Correspondence courses, in general

(1) Provide knowledge

(2) Improve study skills

(3) Develop initiative

VOCABULARY BUILDING AND IMPROVING STUDY SKILLS

Recognizing that vocabulary and study skills play paramount roles in everyone's academic, vocational, and social life, the committee proposed that a concerted, county-wide effort be made to improve these phases of students' work. To initiate this effort, inter-school committees assigned the task of devising a program for each school have been appointed by the principals. Though the work of these committees has varied from school to school, it has taken the following general directions:

I. Vocabulary building

A. Recognizing that teachers' personal vocabularies play a large role in increasing students' vocabularies

B. Conducting inter-school surveys to find what is currently being done to develop vocabularies

C. Compiling lists of techniques presently employed by teachers

D. Holding a series of professional faculty meetings in which the following procedure is used:

1. Presentation to the faculty, by a member of the committee, the importance of vocabulary development:

(a) Success in subject areas is dependent upon vocabulary

(b) Success in given field of work is dependent upon vocabulary

(c) College entrance tests and employment tests stress facility in word usage

(d) Pleasure derived from T. V., radio, literature, social contacts, etc. increases as vocabulary grows

2. Presentation to the faculty, by a member of the committee a general procedure for personal vocabulary development

(a) <u>How to Study</u>, pp. 19 - 24

(b) <u>Developing Your Vocabulary</u>, pp. 9 - 10

c. Building Vocabulary

d. How To Read Better and Faster, pp. 137 - 139

e. 30 Days to a More Powerful Vocabulary

3. Presentation to the faculty, by members of the various departments concrete techniques usable in given subject areas

   a. Give weekly vocabulary lists, in English classes particularly. Have students work with these words doing activities, such as: using the dictionary to find meanings, doing exercises using the words in context, and participating in daily oral drill work. Give a written test on the words at the end of the week

   b. Teach, in foreign language classes particularly, root words, prefixes, and suffixes drawn from the foreign tongue. This increases the students' knowledge of English while he is learning new foreign words

   c. Stress, in all subject areas, the vocabulary of the particular subject, because success in each subject is determined greatly by the mastery of its vocabulary

   d. Give or devise with students a key word list for each unit. Require that students know the meanings and spelling of these words so that they will be able to use them appropriately in oral and written work

   e. Make use of devices such as flannel boards and flash cards

   f. Teach and encourage use of phonetic devices and diacritical marks, found either in the footnotes or in a dictionary, in order to identify new words

   g. Stress connotation of words in order to enhance diction in both oral and written work

   h. Encourage students to use a variety of words to express their thoughts

   i. Stress the use of words as different parts of speech in order to increase facility in their use

(4) Selection of a list of ten to twenty words to be used by all faculty members as frequently as possible during a given month in order to see if students' vocabularies will increase as a result of exposure to the words. Pre and post tests are suggested

II. Improving study skills

A. Stressing the fact that teachers' instruction, guidance, and supervision are essential for improving students' study skills

B. Conducting inter-school survey to find what is currently being done concerning the teaching of study skills

C. Compiling lists of techniques presently employed concerning the teaching of study skills

D. Holding a series of professional faculty meetings in which the following procedure for improving study skills may be used:

1. Presentation to the faculty by a member of the committee - the importance of effective study skills

a. Success in subject areas is fostered by use of effective study skills

b. Success in college is dependent upon use of effective study skills

c. Success in vocational, recreational, and social pursuits is dependent upon mastery of effective study skills

2. Presentation to the faculty by a member of the committee - general suggestions for the improvement of study skills

a. Plan - take constructive action; don't waste time by daydreaming

b. Set aside a suitable place with conditions conducive to study

c. Space learning - take two-to three-minute breaks

d. Study actively - ask questions; recite; take notes, outline; review

e. Vary study techniques to suit the subject and the purpose

f. Avoid rote memorization except where essential

g. Check or proofread work

h. Evaluate effectiveness of study habits

3. Presentation to the faculty by a member of the committee some concrete techniques usable in various subject areas

   a. Conduct personal interviews discussing effective methods of study, the value of correct studying, and the basic requirements for effective study, which are:

      (1) Interest

      (2) Self-discipline

      (3) Self-confidence

      (4) Ambition

      (5) Natural curiosity

      (6) A balanced personality

      (7) Intelligence - the ability to think and reason

   b. Emphasize the importance of a place at home to study away from interference

   c. Stress the importance of time management and good work habits

   d. Provide quiet surroundings in school which will be conducive to study

   e. Emphasize the importance of careful listening

   f. Emphasize the importance of evaluation following any study procedure

   g. Give frequent check-ups with reference to a particular assignment

   h. Emphasize the importance of understanding before attempting memorization

   i. Encourage fast and purposeful reading

   j. Show filmstrips that are illustrative of effective study habits

   k. Use audio-visual aids to clarify and enrich a particular assignment

l. Organize class time so that provision is made for directed study at which time assistance is given as to approach and procedure concerning a particular assignment

m. Encourage use of an assignment book

n. Give purposeful, definite assignments of reasonable length

o. Give instruction in class time concerning:

(1) Approaching an assignment

(2) Outlining

(3) Notetaking

(4) Organizing

(5) Reviewing

(6) Using the library

(7) Using reference materials

(8) Evaluating

p. Request brief statements at the beginning of study hall classes stating plans for work; check on accomplishments at the end of the period

RESPONSIBILITY OF THE INDIVIDUAL TEACHER

The teacher is the key person in the program for the more able students. It is his responsibility to promote learning. The more able students must be led to see that knowledge, to be significant, must be translated into action; skills must be incorporated into competence; and attitudes must be developed which respect the right of the individual to be himself. The teacher must assume initiative in providing desirable learning experiences which stimulate and challenge the learner to grow in the direction of self-realization and effective participation in the culture of which he is a part.

Some of the specific responsibilities of the individual teacher are included in the following categories: teacher preparation, identification of the students, motivation, and instruction.

Teacher preparation

1. Take advantage of opportunities to grow through varied in-service educational programs.
2. Keep up with new techniques and modern trends in specific subject areas.
3. Enrich his own background through cultural and educational experiences so that he may enrich the learnings of his students.
4. Become familiar with work-study habits needed by all students.
5. Become familiar with special characteristics of more able students and the program designed to fit their needs.
6. Be interested and competent in the subject area he teaches.

Identification of the students

1. Use all measures available to identify as early as possible the more able students in classes.
2. Be prepared to make judgment and to submit grades in previous courses for the purpose of selecting participants for the program.

Motivation

1. Be a scholar and provide a scholarly atmosphere if scholarly behavior is desired.

2. Improve the conditions and climate of learning by providing the most challenging intellectual environment possible.

3. Manipulate incentives and goals, arouse interest and induce self-satisfaction within the student, offer praise for tasks well done, and provide continuous evaluation for the student.

4. Try to stimulate the more able students' interests and challenge their abilities through individual activities and projects.

5. Try to stimulate the more able student to a point at which his understanding of the basic subjects is broader and deeper than that of the average student.

6. Be effective in motivation of students by:

    a. Identifying early the more able students and the under-achievers in order to provide for individual differences.

    b. Developing the attitude that ability carries with it responsibility.

    c. Providing greater challenges in course materials.

    d. Emphasizing independent work for the students.

    e. Emphasizing creative work for the students.

    f. Showing enthusiasm for the individual subject area.

Instruction

1. Keep a current list of the more able students within a class.

2. Use sound grouping techniques in order to teach more effectively any subject or to reach more surely any recognized educational goal.

    a. Practice homogeneous grouping by sections within the school.

    b. Practice ability and interest grouping within a particular class--divide students into groups and provide opportunities for each on a different level of difficulty.

    c. Provide different levels of work for each group and for individuals within the group.

3. Teach basic learning skills early to more able students so that they can use these skills in the areas of their interests and abilities.

4. Build upon and refine basic learning skills at each grade level.

5. Develop and improve study skills that the more able students need to achieve success in the program.

6. Replace rote learning with thought learning.

7. Stress the correct pronunciation, spelling, and meaning of words to a point where the students can use them effectively in communicating with others on a much higher level than the average student.

8. Provide depth both in the penetration and in the scope of the topics treated.

9. Use less repetition than is necessary with the average student.

10. Study the needs and interests of the students and provide the materials and experiences needed to satisfy individual differences.

11. Enrich subject areas to challenge the more able student to work to his capabilities.

12. Plan many activities to insure profitable use of the more able student's free time.

13. Build up a resource file of challenging materials and activities.

14. Devise special opportunities for rapid learners interested in a particular subject area.

15. Provide opportunities to learn research skills and to make personal inquiries, so that acquisition of knowledge may continue throughout life.

16. Encourage students to use the library and other resources for carrying on independent study projects.

17. Supervise and follow up individual projects.

18. Provide continuous evaluation of the student's progress.

PRESENTING THE PROGRAM TO PARENTS

Foremost in a student's educational program is family approval. Without this approval, the student is seriously handicapped. The student who knows that his family is backing him in his educational program works harder, studies more intensely, and digs deeper than the student who feels that his family does not care or may be opposed. Guidance reveals many cases in which students who do not have parental backing are working far below their abilities. Such a program as outlined in this bulletin will be doomed if this situation prevails; hence parental support is expected and is necessary. Likewise, the school needs the support of the community.

Any plan for educating the more able students has various interpretations by the members of the teaching profession. It is obvious, therefore, that laymen as well as teachers, need an explanation of the program in order to understand it, to accept it, and to give it full support.

Our program has been designed for the students who have intellectual potential, show promise, and have demonstrated abilities above the average in their classes. This refers not only to special talents which students possess, but also to general abilities and performance in regular school subjects.

The school community should be informed of the purpose of the more able program and that institution of such a program should not be viewed as detracting from the program established for the other students. Instead, the planning for these students is an integral part of the total program of curriculum development and should stimulate improvement in the educational experiences of all the students. This can be done through

the medium of the local press with release of materials prepared by the administrators, the supervisory staff, and school faculties. Other possibilities are civic and community organizations; the most important should be the school Parent-Teacher's Association. Several programs for a period of years should be devoted to this topic.

After the identification of the more able students, the next step would be that of explaining to the parents of the more able students what the school is trying to do for them. The success of the program will depend, in part, on its acceptance by these parents and the assurance of their cooperation.

Meetings of parents and staff members should be arranged to explain the specifics of the program. In a program such as ours the large part of it is devoted to enriching present courses and to providing more time for research and experimentation in order to challenge the students to work to capacity. The parents should fully realize their responsibility in the program by encouraging the students, by providing good study conditions at home, by assuring adequate time for home study, and by example, i.e. being studious themselves. Everyone needs to recognize the importance of education in our way of life. In fact, all citizens should realize that the survival of our society depends upon both quality and quantity education.

When the acceptance of the program by the parents and their cooperation in it have been assured, the teachers, guidance counselors, and administrators should follow up regularly by reporting the progress of the students to the parents. Regular reporting procedures could be done by telephone calls, letters, individual conferences, and group meetings.

The administrative and supervisory staff should work closely with the teachers involved in the program, noting improvement and changes, and revising bulletins and materials for distribution directly to the parents or for publication in the local press.

ADMINISTERING THE PROGRAM

One can readily understand that additional planning is essential for the development of a realistic program that is designed to improve the educational program of the more able students. It will be necessary to make many administrative decisions in each high school, as well as on a county-wide basis. It is intended that this report should serve as a guide, a resource, and a frame of reference as the planning and implementation of the program continues.

Since the high schools in Kent County are relatively small, it is recommended that the principal of each high school assume the responsibility for using the findings and recommendations of this report to plan and direct the program in his school. In accomplishing this task, it will be necessary to acquaint the faculty with the findings of this report and with other literature that may be written from time to time. The full cooperation, complete understanding, and enthusiastic support of each faculty member are important if the program is to achieve success. Early in the planning, the principal will need to develop an effective organization and plan of action that will utilize, to the fullest, the talents and abilities of each member of his staff. In this plan, definite steps will need to be taken with regard to:

1. Clarifying with the students the purpose of the program.
2. Identifying the students who are to participate.
3. Making appropriate changes in the instructional program.
4. Determining the responsibilities of each staff member.
5. Deciding on a system of records.
6. Seeking the cooperation of the parents by acquainting them with the program.

7. Evaluating constantly to determine the effectiveness of the various practices that are being followed.

In building the local program, the school should capitalize upon all of the educational opportunities of the school. In addition, full utilization should be made of the countless educational opportunities that exist in the community. For some time, schools have followed a policy of utilizing these community resources for all of the students. For the more able students, it is necessary only to elaborate on this policy.

The initiative and resourcefulness of the faculty, the nature of the school and community, and the response of the students and parents will result in many variations and adaptations of the ideas that have been presented. In providing for the unique and special needs of some students, the principal and staff will have to utilize a high level of ingenuity and skill. In such cases, it will be necessary to practice considerable flexibility in scheduling.

When the budget is being prepared during the month of October, it will be necessary for each school to request funds for parts of the program that will be in addition to the regular program. From an analysis of the program that has been prepared, it should be relatively easy to estimate the extra funds that will be essential.

Toward the end of each school year, it is recommended that a comprehensive evaluation be made to determine the effectiveness of the program. The findings of this evaluation, plus ideas that have been reviewed and found worthy of use, will become the basis for developing the program for the next year. The preparation of such a program will be the responsibility of each high school. These reports will serve as a guide to determine the activities and areas of emphasis that should

be conducted on a county-wide basis.

It is recommended that a committee be appointed to coordinate the program on a county-wide basis. The membership of the committee should include administrators and teachers, with representation from all schools. The committee would be responsible for:

1. Continuing to study the program and making provisions and additions in terms of need.
2. Pooling information concerning activities that are being conducted by the local schools.
3. Analyzing ideas and problems of a county-wide nature.
4. Evaluating the program.
5. Studying ideas and practices that have been developed in other school systems.
6. Determining activities that should be conducted on a county-wide basis.
7. Utilizing consultant services.

PROGRAM IN EACH HIGH SCHOOL: 1961-62

Chestertown High School

During the summer of 1961, a program was planned to enable us to challenge better the more able students in our school. A need was felt for strengthening in six major areas.

I. Grouping

II. Enrichment

III. Vocabulary Building

IV. Additional time allotment for work in biology, chemistry, and physics

V. Addition of English V

VI. Improvement of study skills

The following is a progress report on the program:

I. Grouping

A. For the most part, our more able students are in the A and B, or top sections. The following criteria were used as a basis for grouping.

1. Results of California Mental Maturity Tests

2. Results of SCAT and STEP Tests

3. Past performance of pupils as reflected by marks received in subject areas

4. Teacher judgment

B. Further use of these criteria was made in selecting students for advanced work in English and science.

C. Wherever possible we scheduled major subjects during the same period to permit better interplay, thereby making it possible to have better grouping.

II. Enrichment

A. A faster pace was set for the A and B sections. Much of the same work included in the regular program appeared in the more able students' program, but we were able to accelerate at each grade level, since the more able student could move faster. (The algebra classes, for instance, are much farther ahead than they were at this time last year.)

B. The scope of subjects was broadened - example - the English program included more advanced language and literature.

C. A deeper study of material was possible with regular classes studying excerpts, while advanced groups were able to study entire selections and had time for discussion and analysis.

D. Pupils have been challenged to do additional research and special projects.

III. Vocabulary Building

A. Vocabulary has been emphasized in all classes. Teachers agree it is generally true that the more able students:

1. Learn new words more easily

2. Have a high degree of verbal intelligence

3. Have a tendency to verbalize

4. Have a natural interest in language

B. Using these facts as a basis for vocabulary study, teachers have developed their program with specific aims in mind:

1. Teach vocabulary through a controlled program of direct instruction

2. Teach vocabulary to enrich speaking, writing, and reading vocaulary

3. Teach for discrimination and precision in usage

C. In order to accomplish these goals, teacher developed vocabulary study in various ways:

1. By concentrating on specific word lists for a period of a week with frequent review of complete lists

2. By devoting a part of each English period to vocabulary study

3. By introducing words above the grade level of the students to increase their reading level

4. By frequent writing assignments

IV. Additional time allotment in biology, chemistry, and physics

A. The two extra periods in biology made it possible to carry on activities such as:

1. Photosynthesis experiment - Green cuttings from mocots were placed in water so that oxygen given off is captured. The gas was tested to show that it was oxygen given off in photosynthesis.

2. Daily reports on radio-active fallout in the Baltimore area.

3. Daily feeding and care of guinea pigs with observation on their activity.

B. The extra periods for laboratory work in chemistry made it possible to carry on activities such as the following:

1. Extended practice in the use of equipment

2. Additional work in weighing and measuring

3. Solution and crystalization

4. Effect of temperature on rate and reaction

5. Actions of a catalyst

In addition to experiments conducted in relation to the above, there were numerous demonstrations by the instructor.

The group engaged in a continuing laboratory program which involved qualitative analysis of solutions of unknown composition. There were individual experiments in organic chemistry as well as demonstrations.

C. The extra periods in physics made it possible to do activities such as:

1. Precise measurement as a tool of science (general)

2. Study of vectors and vector addition (mechanics)

3. Mobiles (moments of force about a point)

4. Gravitational balance (study of Newton's law of gravity)

5. Refraction by ray tracing (study of light waves)

Additional experiments were used in the electronics and radio-activity units.

V. Addition of English V

A. English V was offered to the more able students in grade 12 and includes:

1. Backgrounds of literature

   Reading myths, legends, and classical literature to develop a basis for understanding Western literature

2. Essays

   a. Reading to develop comprehension

   b. Reading to develop interest in ideas

   c. Study of rhetorical principles

      (1) Theme idea

      (2) Good diction

      (3) Effective sentences

      (4) Purpose statements

      (5) Topic sentence

      (6) Introduction and conclusion

   d. Writing paragraphs and themes practicing these principles as studied in the essay

3. Critical research paper on one of the recurrent themes in literature

   a. Aspects of love

   b. Problems of good and evil

   c. Nature of tragedy

   d. The search for the self

4. Critical comparison - play, novels

VI. Improvement of study skills

A. By providing class time for direct supervision of study

B. By the "teaching" of study skills in each subject area, i.e.

1. Value of getting main ideas through paragraph analysis and chapter analysis

2. Value of outline form in organization of materials

3. Process of summarization

4. Types of test questions

5. "How to" study for examinations

C. By recognizing that it is the teachers' responsibility to aid the student in gaining good study habits

D. By teaching units dealing with library skills

E. Organization of study classes

1. Large groups supervised by at least two teachers

2. Students needing help with work were referred to teachers who could help them if the study class teacher were unable to help

3. Students who come unprepared to study were referred to subject-matter teachers for assignments

Galena High School

A. Objectives

1. To select students who are to participate in the program

2. To expand and improve library facilities and materials and provide opportunities for more extensive use of the library

3. To encourage and help students achieve a higher level of success by developing effective study habits

4. To help students improve their vocabularies in order to aid them in becoming more proficient in their speaking, reading, and writing

5. To enrich the program now in existence by encouraging independent work

6. To use more appropriate and challenging textbooks and other up-to-date materials of instruction

7. To examine the existing curriculum and make provision for additional offerings

8. To encourage all teachers to keep abreast of current teaching trends by participating in in-service education programs, taking television and extension courses, and attending institutes, lectures, or other programs relative to their subject areas

B. Student Selection

1. The criteria as outlined in this bulletin have been used in identifying the more able students in grades 7 - 12. (These students were placed in the upper levels of their sections.)

2. Students were grouped by sections in grades 7, 8, and 9 according to the criteria suggested in this bulletin--namely, test scores, I. Q.'s, past records, pupil interests, and abilities, and teacher judgment.

3. In grades 10, 11, and 12 students in mathematics, science, and foreign language were grouped according to subjects selected by the students and by the recommendations of the principal and the guidance counselor.

C. Curriculum Changes

1. A decision was made to offer physics to juniors and seniors next year. Approximately thirty students have signed for this course. This will be a multiple class offered on two levels--academic for the college bound and practical for the non-college.

2. A decision was made to offer French to the 10th grade. Approximately twenty-three students have signed for this course. (Latin will be continued in grades 11 and 12.)

D. Enrichment of the Existing Program

Some ways in which the courses in our program have been enriched are as follows:

1. Science

   a. Gave additional work to advanced students in order to enrich and enlarge the regular unit concepts

   b. Gave advanced work in genetics, ionization, mathematics used in chemistry, and problem-solving to provide background and wider experiences

   c. Assigned research papers to provide opportunity for acquisition of information and practical research in the library

2. Mathematics

   a. Gave additional and more advanced work, such as trigonometry, to challenge students' abilities and provide extra experiences

   b. Planned activities that required the use of supplementary materials

   c. Placed special emphasis on word problems to develop understandings and skills in problem-solving

3. English

   a. Gave tests to all students in grade 8 to determine their reading abilities

   b. Held inter-class and intra-class spelling bees in grades 7 and 8 to encourage interest and develop proficiency in spelling

   c. Assigned themes and research papers in order to encourage skill in writing and promote greater understanding through the use of library facilities

   d. Provided for writing and editing school news articles to develop more proficiency in English

   e. Assigned additional work in grammar to challenge students' abilities and to provide additional experiences

4. Social Studies

a. Assigned work on a unit basis with minimum requirements for all and additional work provided for the more able, thus enabling students to achieve according to their rate and ability

b. Assigned graphs, time-lines, and cartoons to develop awareness of sequence of events, and to encourage creativity

c. Provided opportunities for critical thinking, through the use of current events, reports, and class discussions

E. Vocabulary Building and Improving Study Skills

To further enrich our program, teachers have discussed and planned in faculty meetings ways and means to continue the development of good study habits and the improvement of the vocabularies of their students.

1. Some procedures used to improve vocabulary are:

a. Gave weekly vocabulary lists. Had students do activities, such as: using the dictionary to find meanings, using the words in context, participating in daily oral drill work, and taking tests at the end of a week

b. Stressed in all subject areas, the vocabulary of the particular subject

c. Gave or devised with students a key-word list for each unit. Required students to know the meanings and spellings of these words, so that they could use them correctly in oral and written work

d. Taught phonetics and diacritical marks to identify new words

2. Some procedures used to develop good study habits are:

a. Emphasized the importance of careful listening

b. Emphasized the importance of evaluation following any study procedure

c. Encouraged the use of an assignment book

d. Gave purposeful, definite assignments

e. Used audio-visual aids to clarify and enrich a particular assignment

f. Organized the class period so that time was allotted to directed study

Garnett High School

Objectives

In most cases, our more able students are in the academic course. The objectives of our program for meeting the needs of these students are as follows:

1. To discover these students.
2. To afford an opportunity for them to move faster within a given subject area and take advantage of more of the school's offerings.
3. To provide enrichment and direct the students in such a manner that they will move according to their abilities.
4. To continue to improve procedures for ability grouping of students within classes.
5. To enrich the program by encouraging independent work and developing a higher level of creativity.
6. To help students build their vocabularies in order that they may communicate effectively.
7. To help students achieve in school by encouraging them to develop effective study skills.

Selection and Grouping of Students

1. Our more able students have been selected on the basis of the following:
   a. Results of the California Mental Maturity Test
   b. Results of the SCAT and STEP Tests
   c. Recommendations of teachers based on past records and displayed abilities of the students
2. Junior high school students have been grouped on the basis of test ability and academic achievement.
3. Ability grouping has been used within classes.

Program Enrichment within Subject Areas

English

1. Developed an individualized reading program to develop independence and to encourage the reading of challenging and wholesome materials.

2. Used units in dramatics and public speaking to develop special interests related to English.

3. Provided opportunities for students to edit school papers and other creative and expository writing to develop facility in written expression.

4. Required students to write themes and to do research.

5. Planned and presented assemblies and plays to improve written and oral expression.

Social Studies

1. Made time lines to develop a concept of the sequence of events.

2. Provided opportunities for critical thinking by discussing the relationship of the United States to other nations.

Science

1. Used the Physical Science Study Committee course with advanced students in physics.

2. Provided a special laboratory program to give the students first-hand familiarity with physical realities and to enable them to go into interesting, related investigations on their own.

3. Provided opportunities for students to perform experiments, the results of which were not known to them in advance, to gain a feeling of personal participation in the discoveries of science.

4. Provided a laboratory guide which introduced the problem at hand, gave technical hints, and left the thinking to the students.

Mathematics

1. Provided opportunities for students, in intra-class groups, to pursue the instructional program at their own rate of speed under the guidance of the teacher.

2. Stressed and developed skills in problem solving, placing special emphasis on word problems.

3. Continued the University of Maryland Modern Mathematics Program for 7th grade students and introduced it as a new course for 8th grade students.

Foreign Language (French)

1. Used audio-lingual approach in classes.

2. Prepared tape recording of original materials to develop facility in written and oral expression.

Music

1. Used student accompanists and performers.

2. Encouraged students to write original compositions.

Business

1. Used supplementary problems to challenge students to work to their capacities.

2. Encouraged students to subscribe to current literature and to read worthwhile articles in the business field.

Vocabulary Building and Improving Study Skills

To improve and upgrade the entire educational program teachers developed the following techniques for building the vocabularies of all students and improving their study skills.

Vocabulary Building

1. Encouraged students to use the dictionary to look up the meanings, pronunciations, and correct spelling of new words.

2. Taught word analysis, chart building, and origin of words.

3. Placed emphasis upon the use of prefixes and suffixes.

4. Required students to develop a glossary of new terms encountered in their study of a course, to learn the meaning, to spell and pronounce correctly, and to practice using these terms in daily conversation with others.

5. Used crossword puzzles and other spelling demons in classes.

6. Used vocabulary development programs and tests to measure students' progress.

7. Required students to use a variety of words to express their thoughts.

8. Presented program to the faculty, stressing the importance of vocabulary development and the methods of vocabulary building.

Improving Study Skills

1. Placed emphasis upon good study habits to be practiced when completing home assignments.

2. Showed and discussed films and filmstrips to help all students develop good study skills.

3. Informed parents of the necessity for helping their children develop good study habits.

4. Taught units dealing with the use of the library and how to study. Some of the specifics included in the contents of these units were:

   a. Outlining

   b. Notetaking

   c. Organizing

   d. Reviewing

5. Scheduled special class periods for teachers who desired to bring their students to the library for research work.

6. Organized class time to provide for directed study and to assist students in planning assignments.

Rock Hall High School

Purpose

Our objective during the summer of 1961 and during the school year 1961 - 1962 has been to implement gradually a program for the more able students. Following is a report of the various steps taken.

I. Selection of students

A. Devised a form on which to compile the results of achievement and mental maturity tests, grades in major subjects, and teacher evaluations

B. Initiated a limited use of the selection form

C. Planned to use the form extensively late in the school year when scheduling of classes for 1962 - 1963 began

II. Implementation of the program

A. Grouping

1. Continued to section the 7th and 8th grades according to student ability with special consideration given to reading levels, mathematics levels, and I. Q. ratings

2. Sectioned the 9th grade for the first time. This sectioning was also done according to student ability

3. Continued the practice of combining the 11th and 12th grades for English. The students of these two grades were sectioned in three classes according to past performance in English, teacher recommendations, and I. Q. ratings

4. Scheduled the two better sections of 11th and 12th grade English to meet simultaneously in order to permit transfer from one section to the other

B. Course offerings

1. Offered an algebra preparatory course in the 8th grade

2. Offered advanced mathematics to seven seniors who had completed Algebra I, Algebra II, and Plane Geometry

C. Enrichment

1. Employed laboratory techniques in biology and chemistry while carrying on a continuous program of laboratory experimentation

2. Stressed conversational French

3. Placed special emphasis in English C on writing of analysis and argument

4. Produced a play which challenged the students of the 11th and 12th grades. Most of work for this play was done after school, however, it paralleled a drama unit which included study of play writing and production

5. Required the more able students in P. O. D. to complete research papers

6. Taught debating techniques with the result that several intra-class debates indicated that the students had made considerable progress in use of logic and in oral expression

7. Increased the number of field trips to places of business, industry, science, and history

8. Began during the month of January, the sale of teacher selected paper back books. Sales from January to May exceeded 200 books

9. Reorganized the Library Club in order to increase interest in reading and to give training in library work

10. Added oil painting and scuplturing to the art programs in the 7th and 8th grades

D. Reference materials

1. Added numerous reference materials to the library. These include references of a general nature as well as special ones for literature, history, and science

2. Increased the number of special references in individual classrooms

E. Vocabulary building

1. Placed considerable emphasis on vocabulary building at all grade levels in all subjects. This emphasis paralleled a series of professional faculty meetings devoted to vocabulary building

2. Placed emphasis on spelling and on use of good English in all subjects

F. Improvement of study habits and skills

1. Began studying, in professional faculty meetings, the question of improving study skills. Plans have been made to continue work in this area during the school year 1962-1963

2. Placed emphasis on teaching study skills in regular classes

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